



**The VIII International Young
Researchers' Conference**

**Physics Technology
Innovations**

Program

of the Eighth International Young

Researchers' Conference

Physics. Technologies. Innovation.

PTI-2021

May 17-21, 2021

Yekaterinburg

Программа

Восьмой Международной молодежной

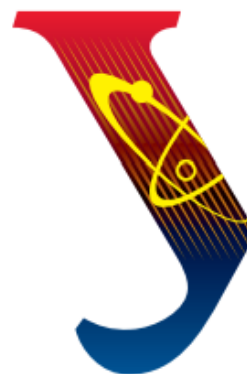
научной конференции

Физика. Технологии. Инновации.

ФТИ-2021

17-21 мая 2021 г.,

г. Екатеринбург



**Ural Federal
University**

named after the first President
of Russia B.N.Yeltsin

**Institute of Physics
and Technology**

PROGRAM OVERVIEW

Day 1 – Monday – May 17

<i>Arrival of participants</i>	
15:00 – 18:00	Registration <i>Foyer Ft-201.</i>

Day 2 – Tuesday – May 18

08:00 – 09:00	Registration <i>Foyer Ft-201</i>	Poster Session Panel 3. Panel 4. Arrangement of display stands <i>Main Foyer, PTI 2 floor</i>	
09:00 – 09:20	Opening Welcome and opening comments of top university officials including Dean of Institute of Physics and Technology <i>F-201</i>		
09:20 – 10:10	Plenary Talk Prof. S.V. Streltsov (Institute of Metal Physics, UB RAS, Russia) «Orbitals, spins, lattice, charges and coupling between all of them» <i>F-201</i>		
10:10 – 11:00	Plenary Talk Chu-Chen Chueh (National Taiwan University, Taiwan) «Improving Performance and Stability of Polymer/Perovskite Solar Cells by Using Polymeric Interlayers ». <i>F-201, on-line</i>		
11:00 – 11:15	Break		
11:15 – 13:15	<u>Oral reports</u> Panel 2 №№ 1-12 <i>F-425</i>	<u>Oral reports</u> Panel 4 №№ 1-12 <i>F-414</i>	<u>Oral reports</u> Panel 5 №№ 1-12 <i>F-201</i>
13:15 – 13:45	Coffee Break. F-416		
13:45 – 15:45	<u>Oral reports</u> Panel 2 №№ 13-24 <i>F-425</i>	<u>Oral reports</u> Panel 4 №№ 13-23 <i>F-414</i>	<u>Oral reports</u> Panel 5 №№ 13-24 <i>F-201</i>
15:45 – 16:00	Break		
16:00 – 19:00	<u>Poster Session</u> Panel 3 <i>PTI 2 floor</i>	<u>Poster Session</u> Panel 4 <i>Main Foyer</i>	<u>Oral reports</u> Panel 5 №№ 25-39 <i>F-201</i>

Day 3 – Wednesday – May 19

08:30 – 09:00	Poster Session Panel 1. Panel 5. Panel 6. Arrangement of display stands, <i>Main Foyer</i>		
09:00 – 09:40	Plenary Talk Dr. Yu.M. Zhukov (PREVAC sp. z o.o., Poland) «X-ray Photoelectron Spectroscopy: surface analysis» <i>F-201</i>		
09:40 – 10:20	Plenary Talk Dr. A.I. Safonov (Kutateladze Institute of Thermophysics, SB RAS, Russia) «Deposition of thin fluoropolymer coatings by Hot Wire CVD: preparation, features and properties» <i>F-201, on-line</i>		
10:20 – 11:00	Plenary Talk Prof. V.I. Grokhovsky (Ural Federal University, Russia) «Materials science of matter of extraterrestrial origin», <i>F-201</i>		
11:00 – 11:15	Break		
11:15 – 13:15	<u>Oral reports</u> <u>Panel 1 №№ 1-9</u> <i>F-310b</i>	<u>Oral reports</u> <u>Panel 3 №№ 1-12</u> <i>F-414</i>	<u>Oral reports</u> <u>Panel 6 №№ 1-11</u> <i>F-425</i>
13:15 – 13:45	Coffee Break. F-416		
13:45 – 17:30	<u>Poster Session</u> <u>Panel 1</u> <i>Foyer Ft-201</i>	<u>Poster Session</u> <u>Panel 5</u> <i>Main Foyer</i>	<u>Poster Session</u> <u>Panel 6</u> <i>PTI 2 floor</i>
17:30 – 18:00	Registration for intellectual game “What? Where? When?” <i>Foyer F-201</i>		
18:00 – 21:00	Intellectual game “What? Where? When?” <i>F-201</i>		

Day 4 – Thursday – May 20

08:30 – 09:00	Poster Session Panel 2. Panel 7. Arrangement of display stands, <i>Main Foyer</i>	
09:00 – 11:00	<u>Oral reports</u> Panel 7 №№ 1-12 <i>F-201</i>	<u>Oral reports</u> Panel 8 №№ 1-11 <i>F-310b</i>
11:00 – 11:15	Break	
11:15 – 13:15	<u>Oral reports</u> Panel 7 №№ 13-24 <i>F-201</i>	<u>Poster Session</u> Panel 2 <i>Main Foyer</i>
13:15 – 13:45	Coffee Break F-416	
14:00 – 17:40	<u>Poster Session</u> Panel 7 <i>PTI 2 floor</i>	<u>Poster Session</u> Panel 2 <i>Main Foyer</i>
17:00 – 17:40	Plenary Talk Prof. J.L. Menéndez (Consejo Superior de Investigaciones Científicas (CSIC)) «Metal-ceramic metamaterials for wireless power transfer applications» <i>F-201</i>	
17:40 – 18:20	Plenary Talk Dr. I.V. Okulov (Universität Bremen, Germany) «Nanoporous Materials via High-Entropy Design » <i>F-201</i>	
18:20 – 19:00	Plenary Talk Prof. E.V. Popov (Ural Institute of Management, Branch of Ranepa, Russia) «Theory of ecosystem analysis» <i>F-201</i>	
19:00 – 20:00	Closing Closing remarks, PTI-2022 announcement, Distribution of awards for “What? Where? When?” game, awarding for best reports, photo-shooting. <i>F-201</i>	

Day 5 – Friday – May 21*Departure of participants***List of online reports**

<u>List of online reports. Panel 1</u>	<u>List of online reports. Panel 2</u>	<u>List of online reports. Panel 3</u>	<u>List of online reports. Panel 4</u>	<u>List of online reports. Panel 5</u>	<u>List of online reports. Panel 6</u>	<u>List of online reports. Panel 7</u>	<u>List of online reports. Panel 8</u>
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Panel 1.

Oral reports

[**Return to the conference program**](#)

1. METHODS OF ACCOUNTING FOR THE ENERGY DEPENDENCE IN DETERMINING THE EQUIVALENT DOSE USING PERSONAL DOSIMETERS, *Anton Latypov*.
2. USING THE MONTE-CARLO METHOD TO OPTIMIZE THE RADIATION PROTECTION COMPOSITION OF CONTAINERS FOR DISPOSAL OF CONDITIONED LIQUID RADIOACTIVE WASTE, *Vladislav Litovchenko*.
3. COMPARISON OF CONCENTRATION METHODS FOR SAMPLES OF GASEOUS EMISSIONS FROM AN INDUSTRIAL REACTOR FACILITY FOR DETERMINING THE RADIONUCLIDE COMPOSITION, *Nikitenko Eugeny*.
4. RELEASE OF RADIOACTIVE IODINE IN THE ATMOSPHERE DURING NPP NORMAL OPERATION, *Aleksandra Nazarovich*.
5. SYSTEMATIZATION AND AUTOMATION OF THE CALCULATION OF THE MPE OF VARIOUS RADIONUCLIDES FOR GIVEN POPULATION GROUPS, *Vladimir Butygin*.
6. ON MECHANISMS FOR IMPLEMENTING LOW-ENERGY NUCLEAR REACTIONS, *Nadezhda Kashchenko*.
7. IRRADIATION OF SAMPLES WITH LITHIUM-CONTAINING CERAMICS AND BERYLLIUM-CONTAINING ALLOYS IN THE IVV-2M REACTOR TO STUDY THE KINETICS OF TRITIUM YIELD, *Vasyutin Nikita*.
8. ON DETERMINING OF THE OPTIMAL THERMODYNAMIC PARAMETERS OF THE VVER-1200 REACTOR USING COMPUTER SIMULATION, *Ivan Andreevich Shirmanov*.
9. SIMULATION AND EXPERIMENTAL STUDY OF HYDRODYNAMIC CHARACTERISTICS OF SORBENTS FOR ION-SELECTIVE TREATMENT OF LRW, *Ilya Bessonov*.

Panel 2.

Oral reports

[**Return to the conference program**](#)

1. CAUSTIC OF MAGNETOELASTIC WAVES IN A THICK YIG FILM, *Sergey Bakharev*.
2. CATHODO- AND THERMOLUMINESCENCE OF A-AL₂O₃ SINGLE CRYSTALS IRRADIATED WITH FE¹⁰⁺ PULSED ION BEAM, *Guzallia Ramazanova*.
3. DESIGN OF COMPOSITE MATERIALS BASED ON AMORPHOUS RIBBONS WITH TAILORED ANISOTROPY, *Anna Chlenova*.
4. ^{63,65}CU NMR/NQR SPECTROSCOPY OF CUO MULTIFERROIC, *Aleksei Smolnikov*.
5. DISTRIBUTION OF ACTIVATION ENERGY IN LUMINESCENCE QUENCING PROCESSES OF INP/ZNS QUANTUM DOTS, *Sergey Savchenko*.
6. FERROELECTRIC AND DIELECTRIC PROPERTIES OF STRONTIUM TITANATE DOPED WITH BARIUM, *Ahmed Henaish*.
7. INFLUENCE OF CARBON ON MARTENSITIC TRANSFORMATIONS IN IRON ALLOYS FROM THE POSITION OF DYNAMIC THEORY, *Mikhail Kashchenko*.
8. IMPACT OF ANNEALING OF NANOTUBULAR TITANIUM DIOXIDE IN A HYDROGEN FLOW ON ITS STRUCTURE AND MORPHOLOGY, *Anna Sushnikova*.
9. LUMINESCENT PROPERTIES OF SAPPHIRE SINGLE CRYSTALS IRRADIATED WITH KR¹⁹⁺ ION BEAM, *Viktor Kostylev*.
10. INFLUENCE OF ELECTRON-BEAM PROCESSING ON CHANGES IN THE STRUCTURE OF AL-MG ALLOY OBTAINED BY COLD METAL TRANSFER, *Yanfei Geng*.
11. MAGNETIC ENTROPY CHANGE OF SURFACE NANOSCALE SYSTEMS USED AS TRANSMITTING AND LOGIC DEVICES FUNCTIONING DUE TO THE SPIN DEGREES OF FREEDOM OF ATOMS, *Evgenii Syrnikov*.
12. INFLUENCE OF THE PINNING LAYER THICKNESS ON EXCHANGE BIAS IN FENI/FEMN/FENI FILMS, *Anastasia Bykova*.
13. THICKNESS-DEPENDENT HYSTERESIS PROPERTIES OF CO-W FILMS: EXPERIMENT AND COMPUTER SIMULATION, *Feshchenko Anastasia Alexandrovna*.
14. PLASMONIC EFFECTS IN THIN FILMS OF MGAL₂O₄, *Alexander Vagapov*.
15. THE MECHANISM OF CATION DIFFUSION IN THO₂ NANOCRYSTAL BULK. A MOLECULAR DYNAMIC SIMULATION, *Dastan Seitov*.
16. MAGNETIC PROPERTIES AND MAGNETOCALORIC EFFECT OF HO_{0.2}YO_{0.8}(CO_{0.84}FE_{0.16})₂ COMPOUND, *Ragozina Maria Vasilevna*.
17. REMAGNETIZATION PROCESSES IN SINTERED SM-CO AND ND-FE-B PERMANENT MAGNETS, *Andrey Urzhumtsev*.
18. SYNTHESIS OF OPTICAL MGAL₂O₄ NANOCERAMICS WITH GRAPHENE QUANTUM DOTS (GQD), *Dutov Valeriy*.
19. SYNTHESIS, MODIFICATION AND CERTIFICATION OF THE NANOSTRUCTURED TITANIUM DIOXIDE FOR ITS FURTHER APPLICATION AS A GALLIUM PHOTOSORBENT, *Irina Dorosheva*.
20. Substitution of Co on the crystal structure in the LiNi_{1-x}CoxPO₄ system, *Mikhail Semkin*.

21. THE EFFECT OF STABILIZER ON THE PROPERTIES OF COLLOIDAL SILVER SULFIDE NANOPARTICLES, *Ekaterina Vorontsova*.
22. THERMOINDUCED ION DIFFUSION IN $MgAl_2O_4$ THIN FILMS, *Stanislav Gaev*.
23. THE MECHANISM OF INTRINSIC ION DIFFUSION IN UN AND UC NANOCRYSTALS BULK. A MOLECULAR DYNAMIC SIMULATION, *Sergey Pitskhelaury*.
24. THE BOUNDARY INTEGRAL METHOD FOR CRYSTALLIZATION WITH A FORCED FLOW, *Ekaterina Titova*.

Panel 3.

Oral reports

[**Return to the conference program**](#)

1. IMPLEMENTATION OF DIGITAL METHODS TO ANALYSE EDDY-CURRENT SIGNALS BASED ON THE E14-440 MODULE, *Danila Ksenofontov*.
2. INVESTIGATION OF STRESS-STRAIN BEHAVIOR OF STANDART CONSTRUCTION METAL STRUCTURES USING FORSTER METHOD, *Konstantin Orlov*.
3. SIMULATION OF A CLOSED-LOOP MAGNETIZING SYSTEM FOR A PORTABLE DRILL PIPE MAGNETIC FLAW DETECTOR, *Leonid Mikhailov*.
4. GEOMETRY RECOVERY OF SURFACE FLAW OF FERROMAGNETICS WITH RESISTANT TO INPUT NOISE, *Nikitin Andrey*.
5. DESIGN AND ANALYSIS OF 2.56 GBPS CML CMOS TRANSCEIVER WITH SPECIFIC LOAD FOR PHYSICAL INSTRUMENTATION APPLICATIONS, *Artur Serazetdinov*.
6. ANALYSIS OF INFLUENCE OF THE CLUSTERING DEGREE OF THE ANTENNA ARRAY ON ITS RADIATION CHARACTERISTICS, *Mikhail Shishkin*.
7. DEVELOPMENT OF A DEVICE FOR GENERATION OF LOW CONCENTRATIONS OF VAPORS, *Shchapov Ilya*.
8. KINEMATICS AND DYNAMICS OF A ROBOTIC ARM WITH RIGID LINKS, *Olga Kuznetsova*.
9. LASER RADIATION AS A WAY TO CONTROL THE ANALYTICAL PARAMETERS OF FIELD ASYMMETRIC ION MOBILITY SPECTROMETER FOR DETECTION OF EXPLOSIVES IN VAPOR PHASE, *Vitaly Kostarev*.
10. METAL STRUCTURES MONITORING SYSTEM OF NPP, *Artemiy Baldin*.
11. SPECTRAL AND TEMPORAL SEPARATION OF OPTICAL STIMULATION AND OPTICALLY STIMULATED LUMINESCENCE SIGNALS IN ANION-DEFICIENT CORUNDUM, *Alexey Tuykov*.
12. BIO-INSPIRED DESIGN OF A GRIPPER FOR HARVESTING ROBOT, *Semen Stupin*.

Panel 4.

Oral reports

[**Return to the conference program**](#)

1. ASSESSMENT OF THE GEOCHEMICAL BACKGROUND AND POLLUTION OF SETTLEMENTS OF CITIES BASED ON THE STUDY OF MODERN ANTHROPOGENIC SEDIMENTS, *Arina Gushshamova*.
2. STABLE LEAD ISOTOPIC RATIOS IN SURFACE DEPOSITED SEDIMENT AS INDICATOR OF URBAN GEOCHEMICAL PROCESSES, *Nadezhda Reutova*.
3. THERMAL CONDUCTIVITY OF FLUORINATED SOLUTIONS OF UNSATURATED HYDROCARBONS WITH A POSITIVE EXCESS VOLUME, *Ilya Povolotskiy*.
4. CHARACTERISTICS OF SUPERCAPACITORS ELECTRODES BASED ON TITANIA AND CARBON NANOTUBES, *Sergey Silenkov*.
5. COAGULATION OF MICRODISPERSED GOLD DROPLETS IN AN OXIDE MELT, *Sergey Fedorov*.
6. CORROSION OF HASTELLOY G-35 IN SODIUM CHLORALUMINATE, *Julia Gordeeva*.
7. INVESTIGATION OF THE STATICS OF STRONTIUM SORPTION USING THE INORGANIC SORBENT THERMOXID-3K, *Anna Suetina*.
8. DEVELOPMENT OF THE SEPARATION STAGE OF STRONTIUM-90 AND YTTRIUM-90 WITH THE USE OF INORGANIC SORBENT T-3K, *Taisiya Vasilievna*.
9. DEVELOPMENT OF A METHOD FOR DETERMINATION OF SR-90 IN NATURAL WATER SAMPLES USING SORBENT THERMOXID-3K, *Nadezhda Belokonova*.
10. STUDY OF THE KINETICS OF SR-90 SORPTION BY FERROCYANIDE SORBENT BASED ON GLAUCONITE, *Marina Kulikova*.
11. EXPERIMENTAL RESEARCH OF THE LRW ION-SELECTIVE TREATMENT SORBENTS HYDRAULIC RESISTANCE, *Sergey Mordanov*.
12. INVESTIGATION OF THE EFFECT INTENSITY OF IRRIGATION ON THE HYDRODYNAMICS OF TWO-PHASE FLOW IN HEAT EXCHANGER TUBE EVAPORATOR, *Viktoria Gushshamova*.
13. THE HYDRODYNAMICS SIMULATION OF TWO-COMPONENT SOLUTION IN THE VOLUME OF THE REACTOR WITH A TWO-LEVEL BLADE MIXING DEVICE, *Dilyara Naskina*.
14. TWO-PHASE FLOW HYDRODYNAMICS RESEARCH IN THE LRW OZONATION CONTACT APPARATUS, *Ivan Novoselov*.
15. THE STUDY OF THE SELECTIVE PROPERTIES OF THIOCARBAMOYLATED PROPYLPOLYSILOXANE, *Alexandra Sysolyatina*.
16. SORPTION RECOVERY OF ARSENIC (III) AND ANTIMONY (III) FROM SOLUTIONS USING NANOCOMPOSITE MNO₂/C, *Anastasia Belozeroва*.
17. INFLUENCE OF GROUP V METALS ON PHASE FORMATION AND INTERFACIAL PROPERTIES OF TITANIUM-ALUMINUM ALLOYS, *Tatiana Osinkina*.
18. DEVELOPMENT OF A METHODOLOGY FOR DETERMINING THE VARIOUS OXIDE FORMS OF SNF, *Anna Burdina*.
19. NUMERICAL STUDY OF STEAM-AIR GASIFICATION OF KUZNETSK COAL IN ENTRAINED-FLOW REACTOR, *Alexander Nikitin*.

20. NUMERICAL STUDY OF THE PROCESS OF POWDERS FRACTIONAL SEPARATION IN A VORTEX CHAMBER, *Roman Turubaev*.
21. PREDICTION OF PHASE FORMATION OF HIGH-ENTROPY ALLOYS OF GROUPS IV AND V, *Andrey Russkih*.
22. OPTIMIZATION OF THE TEMPERATURE-TIME PROGRAM FOR ELECTROTHERMAL MOLECULAR ABSORPTION DETERMINATION OF IODINE, *Dmitry Eltsov*.
23. EFFECT OF MECHANICAL ACTIVATION AND SOLID-STATE SYNTHESIS TEMPERATURE ON THE COMPOSITION AND GRAIN SIZE OF TUNGSTEN CARBIDE, *Sergey Bazhenov*.

Panel 5.

Oral reports

[**Return to the conference program**](#)

1. STRUCTURE AND PHASE TRANSFORMATIONS IN GRAPHENE-REINFORCED COMPOSITES Ti/G, *Elmira Kurbanova*.
2. EFFECT OF Al ADDITION ON THE PHASE COMPOSITION, MICROSTRUCTURE, AND MICROHARDNESS OF NANOCRYSTALLINE WC CERAMICS, *Anastasia Batenkova*.
3. NIR PHOTOLUMINESCENCE IN C-MODIFIED TITANIUM DIOXIDE WITH ANATASE-BROOKITE MATRIX, *Ekaterina Ulyanova*.
4. THE SYNTHESIS OF CERAMIC ZrO_2 - Y_2O_3 FIBERS BY THE METHOD OF IMPREGNATION OF VISCOSE WOOL, *Alsu Valinurova*.
5. CREATION OF THIN SENSITIVE LAYERS IN CORUNDUM-BASED LUMINESCENT DETECTORS USING LASER IR-HEATING, *Artyom Voloshin*.
6. STUDY OF ORIENTATION STRUCTURES TRANSFORMATION IN NEMATIC DROPLETS DOPED WITH HOMEOTROPIC SURFACTANT, *Abylgazy Abdullaev*.
7. USING OF HIGH-STRENGTH PROTECTIVE COATINGS, REDUCING THE RISK OF INITIATION AND DEVELOPMENT OF STRESS CORROSION CRACKING DEFECTS, *Sergey Rybalko*.
8. DIFFUSION OF THE PHASE TRANSITION IN FERROELECTRIC CERAMIC $BA1$ - $XSRXTIO_3$, *Ivan Popov*.
9. SYNTHESIS OF OXIDE NANOWIRES ON IRON-NICKEL ALLOYS OF EXTRATERRESTRIAL ORIGIN, *Anastasia Begunova*.
10. STRUCTURE AND PROPERTIES OF TRIPLE ALUMINUM-COPPER-MAGNESIUM COMPOSITES, *Azambek Kalonov*.
11. ^{23}Na NMR IN COMPLEX SODIUM TUNGSTATES WITH A NASICON-TYPE STRUCTURE, *Dmitry Fedorov*.
12. SYNTHESIS OF HIGH ENTROPY CARBIDE OF TRANSITION METALS IN A MOLTEN SALT, *Alexandr Varaksin*.
13. PHASE FORMATION IN A FIVE-COMPONENT VCRFECONI ALLOY, *Kseniya Beltyukova*.
14. MODIFICATION OF ALUMINUM-SILICON ALLOYS WITH SMALL ADDITIONS OF TRANSITION METALS, *Pavel Kotenkov*.
15. EFFECT OF Ti AND Zr ADDITIONS ON THE STRUCTURE AND MECHANICAL PROPERTIES OF THE Al-4%Cu ALLOY, *Ivan Gilev*.
16. THERMAL NON-DESTRUCTIVE TESTING OF POROUS COMPOSITE MATERIALS, *Sergey Chernykh*.
17. RESEARCH OF TEXTURE-PHASE TRANSFORMATION IN AUSTENITIC CHROMIUM-NICKEL STEELS BY MEANS OF MAGNETIC NON-DESTRUCTIVE TESTING, *Alexander Kochnev*.
18. ANNEALING OF THE IRON-NICKEL ALLOY OF EXTRATERRESTRIAL ORIGIN AT THE SPINODAL DECOMPOSITION TEMPERATURE, *Egor Podkin*.
19. INFLUENCE OF ULTRASONIC PROCESSING ON QUALITY OF THE SURFACE IN BIOCOMPATIBLE Ti-6Al-4V ALLOY, MANUFACTURING BY 3D LASER PRINTING, *Yulia Koemets*.
20. FEATURES OF TEXTURE DEVELOPMENT DURING PHASE TRANSFORMATIONS IN Ti-6Al-4V ALLOY, *Inna Naschetnikova*.

21. REASONS FOR THE INCREASED DISPERSION IN THE MECHANICAL CHARACTERISTIC OF THE REACTOR PRODUCT MADE FROM Zr-2,5% Nb, *Valentin Yarkov*.
22. CHARACTERISTICS OF THE IBR-2 IRRADIATION FACILITY FOR CONDUCTING RESEARCH OF THE RADIATION RESISTANCE FOR MATERIALS, *Belova Maria*.
23. EVALUATION OF THE SHIELDING CAPACITY OF THE Na₂O₃-B₂O₃-Bi₂O₃-MoO₃ GLASS SYSTEM USING THE GEANT4 CODE AND THE XCOM DATABASE, *Strugov Egor Dmitrievich*.
24. ASSESSMENT OF PROTECTIVE PROPERTIES OF A GLASS SYSTEM USING PHY-X SOFTWARE AND GEANT 4 CALCULATION CODE, *Mutaz Aladailah*.
25. ASSESSMENT OF PROTECTIVE PROPERTIES OF GLASSES WITH THE USE OF GOLMIUM OXIDE AGAINST GAMMA RADIATION, *Ivan Shirmanov*.
26. A PHASE PHORMATION OF NIOBIUM-CONTAINING BISMUTH TUNGSTATES, *Anna Cheremnykh*.
27. INVESTIGATION OF La_{0.9}M_{0.1}MnO_{3±Y} (M = Li – Cs) SYNTHESIS CHARACTERISTICS AND CHARGE GENERATION POSSESS DURING THE COMBUSTION OF ORGANO-NITRATE PRECURS, *Anastasia Permiakova*.
28. STRUCTURE AND OXYGEN NONSTOICHIOMETRY OF COMPLEX OXIDES IN THE Ln – Ba – Fe – Co – O (Ln = Dy, Ho) SYSTEMS, *Irina Bastron*.
29. PHASE EQUILIBRIA IN THE Pr₂O₃–BaO–Fe₂O₃ SYSTEM, *Maria Bazueva*.
30. CONDUCTIVITY OF DOPED La₂ScZnO_{5.5}, *Svetlana Pachina*.
31. SrFe₁₂O₁₉ AS AN IMPURITY IN PEROVSKITE-TYPE FERRITES, *Shamsutov Ivan*.
32. FORMATION OF VARIOUS PRETILT ANGLES IN LIQUID-CRYSTAL CELLS WITH PLANAR-CONIC BOUNDARY CONDITIONS, *Denis Kostikov*.
33. THE (2+1)-DIMENSIONAL COUPLED CUBIC-QUINTIC COMPLEX GINZBURG-LANDAU EQUATIONS IN BINARY FLUID CONVECTION AND SOLITARY WAVE SOLUTIONS, *Ehab Selima*.
34. INVESTIGATION THE PRESSURE RELAXATION TIME OF N-DIMENSIONAL SPHERICAL BUBBLE WITHIN Fe₃O₄- NANOFUID, *Ahmed Kamal Abu-Nab*.
35. THE DEGREE OF CRYSTALLINITY OF SUB-FOSSIL BIOGENIC APATITE ACCORDING TO FTIR SPECTROSCOPY, *Svetlana Lepekha*.
36. INFLUENCE OF THE SHORT-RANGE AND LONG-RANGE ORDER ON THE KINETICS OF THE INTERMETALLIC PRECIPITATION IN THE ALLOY C4, *Daria Popkova*.
37. THE APPROBATION OF JOINT ANALYSIS OF IMAGES (JPD-METHOD) TO STUDY THE MICRO-INHOMOGENEOUS MATERIALS, *Dmitry Zamyatin*.
38. PT/H-BN NANOSTRUCTURES DEVELOPMENT FOR HETEROGENEOUS CATALYSIS, *Andrey Kovalskii*.
39. THE STUDY OF THE ELECTRET PROPERTIES OF POLYLACTIC ACID WITH AEROSIL, *Gulina Sharipova*.

Panel 6.

Oral reports

[**Return to the conference program**](#)

1. MODELING THE STATE OF AN OVERHEAD POWER LINE BASED ON TAKING INTO ACCOUNT THE DEFECTIVENESS OF CABLES AND WEATHER CONDITIONS, *Anton Lisovenko*.
2. DEVELOPMENT OF AN ALGORITHM WITH ELEMENTS OF COMPUTER VISION FOR SIMPLE SPECTROFLUORIMETER-FREE QUANTITATIVE DETERMINATION OF EXPLOSIVES BY SENSORS, *Leila Sadieva*.
3. SCIENTIFIC COMPUTATIONAL WEB SERVICE FOR RESEARCH OF THE MICROSTRUCTURE TRANSITIONS DURING SOLIDIFICATION, *Alexandra Slysheva*.
4. DEVELOPMENT OF A VIRTUAL MODEL OF RADIATION-HAZARDOUS ROOMS OF THE BN-600 REACTOR PLANT, *Zavadskii Daniil*.
5. SIMULATION OF A THERMOSYPHONE-BASED PASSIVE HEAT REMOVAL SYSTEM FOR THE STORAGE PIT OF THE IVV-2M RESEARCH NUCLEAR REACTOR, *Stepan Glukhov*.
6. 3D MODELING OF TECHNOLOGICAL SYSTEMS AND PROCESSES OF THE RADIOACTIVE WASTE RECYCLING COMPLEX, *Ilya Rozanekov*.
7. OPTIMIZATION OF MULTISTREAM CASCADES WITH A GIVEN NUMBER OF GAS CENTRIFUGES FOR PURIFICATION OF REGENERATED URANIUM HEXAFLUORIDE FROM 232, 234, 236U, *Stepan Lubnin*.
8. EXPERIMENTAL INVESTIGATIONS OF TEMPERATURE CONDITIONS IN THE STORAGE PIT OF THE RESEARCH NUCLEAR REACTOR IVV-2M, *Dmitriy Shumkov*.
9. SMALL-SIZED LOW-POWER NUCLEAR POWER PLANT WITH LIQUID METAL COOLANT FOR ARCTIC CONDITIONS, *Danil Litvinov*.
10. INDICATORS OF CLASSICALITY/QUANTUMNESS OF FINITE- DIMENSIONAL SYSTEMS, *Martin Bures*.
11. EXPERT SYSTEM FOR PREDICTING THE ONSET OF PREGNANCY AND THE TERM OF A CHILDBIRTH USING IVF DEPENDING ON THE PATIENT'S ANAMNESIS, *Svetlana Sinotova*.

Panel 7.

Oral reports

[**Return to the conference program**](#)

1. APPLICATION OF NEURAL NETWORKS FOR PROCESSING HEART MEDICAL IMAGES, *Maria Komaristaia*.
2. RADIATION PROCESSING OF POTATOES BY ELECTRON BEAM, *Anton Krasnoslobodtsev*.
3. COMPARISON AND ANALYSIS OF EPR-SPECTRA OF TEFLON-4 AND TEFLON-40, *Matvey Agletdinov*.
4. INFLUENCE OF STOCHASTIC EFFECTS ON PATTERN GENERATION PROCESSES IN SELKOV GLYCOLYTIC MODEL WITH DIFFUSION, *Alexandr Pankratov*.
5. THE DEVELOPMENT OF THE THERMOSTAT BASED ON THE SMALL SIZED PELTIER ELEMENTS FOR MAINTAINING THE PREDEFINED TEMPERATURE OF A BIOLOGICAL PREPARATION, *Konstantin Sakhno*.
6. GENDER RECOGNITION AND BIOMETRIC IDENTIFICATION USING CONVOLUTIONAL NEURAL NETWORKS, *Sofia Duikova*.
7. THE RAT'S GASTROINTESTINAL TRACT DOSE DUE TO INNER IRRADIATION BY "HOT" PARTICLES, *Elvira Denisova*.
8. STATISTICAL MODELING OF INFLUENCE CIGARETTE SMOKING ON THE STATE OF THE CARDIOVASCULAR SYSTEM OF INDUSTRIAL ENTERPRISES WORKERS, *Marina Savintseva*.
9. SEGMENTATION OF MICROORGANISMS IN GORIAEV'S CAMERA USING RANDOM FOREST AND XGBOOST ALGORITHMS, *Maria Chechulina*.
10. INVESTIGATION OF THE RADIATION-INDUCED SIGNAL IN WHEAT SEEDS BY EPR METHOD, *Anastasia Chumanova*.
11. MODEL OF PROTOCELL MOVEMENT BASED ON ACTIVE TRANSPORT OF SUBSTANCES THROUGH THE MEMBRANE, *Bondar Vyacheslav*.
12. THE IMPLEMENTATION OF THE QUASI-ISOMETRIC CONTRACTION MODE OF A SINGLE CARDIOMYOCYTE USING A DIGITAL MICROMANIPULATION SYSTEM, *Denis Volzhaninov*.
13. HERBAL SUPPLEMENTS, *Lizet Ramirez*.
14. EXPERIMENTAL RESEARCHING MECHANICAL CHARACTERISTICS AND PLA PLASTIC APPLICABILITY AFTER ELECTRON BEAM RADIATION TREATMENT, *Ekaterina Gasilova*.
15. THE METHOD FOR MEASURING THE PROTECTIVE EFFECT OF RADIOMODIFIERS, *Andrey Gerasimov*.
16. ANTIOXIDANT ACTIVITY OF CERIUM OXIDE NANOPARTICLES IN THE MALTODEXTRIN SHELL, *Serafima Maslova*.
17. A MODIFIED MAST CELL CULTURE METHOD TO CREATE AN EXPERIMENTAL MODEL, *Leiberova Anna*.
18. MODERN WASTEWATER TREATMENT TECHNOLOGIES, *Charles Lwamba*.
19. INFLUENCE OF RADIATION TO A LOW-ENERGY ELECTRONIC BEAM ON THE GERMINATION AND GROWTH OF PLANTS OF THE SPECIES TRITICUM L., *Timofej Chernobrovkin*.

20. THE INFLUENCE OF LOW-DOSE X-RAY IRRADIATION ON THE MICROORGANISMS OF STARTER CULTURES FOR YOGURT PRODUCTION, *Darya Zhuravleva.*
21. ATRIAL FIBRILLATION PHENOTYPE EXTRACTION BASED ON HEART RATE VARIABILITY ANALYSIS, *Markov Nikita.*
22. ANALYSIS OF DYNAMIC REGIMES OF A STOCHASTIC TUMOR-IMMUNE MODEL UNDER CHEMOTHERAPY, *Anna Chukhareva.*

Panel 8.

Oral reports

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1. AGILE APPROACH IN THE PROCESS OF COMMERCIALIZATION OF INNOVATIVE DEVELOPMENTS, *Daria Shalina*.
2. METHODS OF USING CLUSTER ANALYSIS TO DETERMINE COMPETITIVE STRATEGIES OF PHARMACEUTICAL COMPANIES, *Aleksandra Krivochshekova*.
3. MODELS FOR AGILE PROJECT MANAGEMENT UNDER A DIGITAL TRANSFORMATION, *Stanislav Ozornin*.
4. ON THE NECESSITY AND POSSIBILITY OF INTRODUCING SELF-DRIVING TRAMS IN AN URBAN ENVIRONMENT, *Artem Burmich*.
5. INDUSTRIAL ENTERPRISE PRODUCTION PLANNING SYSTEM MANAGEMENT CONCEPT, *Dmitrii Zaitsev*.
6. COMPARATIVE ANALYSIS OF THE OLD AND NEW VERSIONS OF GOST R 31000, *Makarova Irina*.
7. CALIBRATION LABORATORY RISK MANAGEMENT AS AN INNOVATIVE APPROACH TO THE MANAGEMENT OF WEATHERFORD, *Ekaterina Garanina*.
8. DEVELOPMENT OF A STANDARD CERTIFICATE FOR CERTIFIED OBJECTS USED IN NUCLEAR POWER UTILIZATION, *Valeria Kheynshteyn*.
9. PERFORMANCE EVALUATION METHODS REVIEW USING THE QMS EXAMPLE, *Ksenia Bortnikova*.
10. THE RESULTS OF THE FORCED TRANSITION TO DISTANCE LEARNING THROUGH THE EYES OF STUDENTS, *Reshetnikova Olga*.
11. DEVELOPMENT OF A PERSONNEL MOTIVATION SYSTEM FOR RATIONALIZATION ACTIVITIES AT AN INDUSTRIAL ENTERPRISE, *Tatyana Gavrilova*.

Panel 1.

Poster reports

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1. DOSIMETRY OF WEAKLY PENETRATING RADIATION AT WORK STATIONS OF THE INM JSC, *Kirill Polozov*.
2. ENERGY AND ANGULAR NEUTRON FLUX DENSITY DISTRIBUTION AT WWER NPP, *Valeria Zhurina*.
3. EQUILIBRIUM COEFFICIENT OF TECHNOGENIC RADIOACTIVE NOBLE GASES AND THEIR PROGENY IN ATMOSPHERE OF A RESEARCH NUCLEAR REACTOR, *Maxim Vasyanovich*.
4. PERSONAL DOSIMETRY OF NEUTRON RADIATION AT RESEARCH NUCLEAR REACTOR, *Mariia Pyshkina*.
5. RADIOECOLOGICAL MONITORING OF SOILS, *Anna Tkachenko*.
6. POST-EVALUATION AND ESTIMATE OF RADIOACTIVE WASTE FORMATION DURING NORMAL OPERATION OF RUSSIAN NUCLEAR POWER PLANTS, *Denis Desyatov*.
7. INTERNAL ORGANS DOSIMETRY OF ^{89}Zr IN MICE UTILIZING BIODISTRIBUTION OF ^{89}Zr -DFO-TRASTUZUMAB, ZR-OXALATE AND ZR-CHLORIDE: PROMISING BIOKINETIC MODEL, *Zakaly H*.
8. ASSESSMENT OF ALPHA RADIOACTIVITY IN SOME ANIMAL BONES SAMPLES WITH TWO SSNTDS (CR-39 AND CN-85), *Mohamed Hanfi*.
9. MODELING THE BURNUP PROCESS OF NPN AND PuO_2 FUEL COMPOSITIONS IN THE ADVANCED CONCEPTS OF A PULSED BATCH REACTOR IBR-3 AND IBR-4, *Dmitry Rotman*.
10. RESEARCH SYSTEM BASED ON PLASMA FOCUS CHAMBERS, *Mikhailov Yury*.
11. POLARIZATION OF SOLID AND LIQUID CATHODES IN URANIUM-CONTAINING CHLORIDE MELTS, *Soldatova Maria Nikolaevna*.
12. THE ROLE OF Bi_2O_3 ON ENHANCEMENT MECHANICAL AND RADIATION SHIELDING PROPERTIES OF THE K_2O - B_2O_3 GLASS SYSTEM, *Mahmoud Karem*.
13. THE ROLE OF Er_2O_3 IN THE TeO_2 - ZnO GLASS SYSTEM: GAMMA-RAY, FAST AND THERMAL NEUTRONS SHIELDING CHARACTERISTICS, *Mohamed Hanfi*.

Panel 2.

Poster reports

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1. A LOW-TEMPERATURE THERMOLUMINESCENCE OF FUNCTIONAL MATERIALS BASED ON ALKALI HALIDE CRYSTALS, *Dmitry Tavrunov*.
2. ANOMALOUS ISOTHERMAL DECAY CURVES OF THERMOLUMINESCENCE IN AL₂O₃-BEO CERAMIC, *Petr Gorinsky*.
3. CURRENT-VOLTAGE CHARACTERISTICS AND CONDUCTIVITY OF THE CdPbS THIN FILMS, *Kutyavina Anastasiya*.
4. DETERMINATION OF THE LOCAL DOMAIN ORIENTATION IN PMN-PT CRYSTALS BY THE ELECTRON CHANNELING EFFECT, *Rinat Saifetdinov*.
5. DEVELOPMENT AND APPLICATION OF PERTURBATION THEORY FOR SOLVING LARGE-DIMENSIONAL QUANTUM SPIN MODELS, *Elena Maibakh*.
6. DEVELOPMENT AND IMPLEMENTATION OF A THEORETICAL APPROACH FOR ASSESSING ANISOTROPIC MAGNETIC INTERACTIONS IN METALS, BASED ON AB INITIO MODELING, *Kilmetov Anton*.
7. DIELECTRIC PROPERTIES OF THE RB₂ZNCL₄ - AL₂O₃ NANOCOMPOSITE, *Lyubov Stekleneva*.
8. EFFECT OF NON-ISOELECTRICITY OF COMPONENTS ON THE DEPENDENCE OF THE RESIDUAL ELECTRICAL RESISTANCE OF BINARY METAL ALLOYS WITH THE COMPOSITION, *Kirill Borodin*.
9. EFFECT OF PHOTON TREATMENT ON STRUCTURE OF NIOBIUM OXIDE FILMS, *Artem Polovinkin*.
10. EFFECT OF SUBSTITUTION IN THE CATION SUBLATTICE ON PHYSICAL PROPERTIES OF (Fe,V)₇Se₈ COMPOUNDS, *Stepan Mozgovykh*.
11. EFFECT OF TITANIUM AND TITANIUM DIOXIDE DOPING ON THE SUPERCONDUCTING PROPERTIES OF THE Fe_{1.02}Se COMPOUND, *Evgeny Kislov*.
12. ENERGETICALLY FAVORABLE CONFIGURATIONS OF SYMMETRIC TILT GRAIN BOUNDARIES IN TITANIUM(HCP), *Urazaliev Mikhail*.
13. EVOLUTION OF POLYDISPERSE ENSEMBLE OF ELLIPSOIDAL CRYSTALS IN SUPERSATURATED SOLUTION IN COMPARISON WITH SPHERICAL CRYSTALS, *Margarita Nikishina*.
14. FEATURES OF MAGNETIZATION REVERSAL OF HARD MAGNETIC ALLOYS AT LOW TEMPERATURE, *Viktoria Maltseva*.
15. FEATURES OF SIMULATION THE REFLECTION SPECTRA OF POROUS SILICON PHOTONIC CRYSTALS IN THE VISIBLE SPECTRAL RANGE, *Malyshev Oleg*.
16. FERROELECTRIC DOMAIN PATTERNING BY FOCUSED ION BEAM IRRADIATION OF [100]-CUT [001]-POLED PMN-PT SINGLE CRYSTALS, *Pashnina Elena*.
17. FORMATION ENERGIES OF POINT DEFECTS IN GRAIN BOUNDARIES OF POLYCRYSTALLINE TUNGSTEN, *Maksim Stupak*.
18. GENERALIZED ISING MODEL IN A MAGNETIC FIELD, *Egor Tsuwarev*.
19. GROWTH AND CHARACTERIZATION OF BITEX (X=I, CL) 3D RASHBA MATERIALS, *Yulia Khatchenko*.

20. HEAT TRANSFER FEATURES IN DIELECTRIC FLUIDS IN THE COURSE OF NON-STATIONARY HEATING OVER A WIDE RANGE OF PRESSURES, *Alexander Igolnikov*.
21. HIGH-FREQUENCY MAGNETIC PROPERTIES OF A RADIO-ABSORBING MATERIAL WITH A RESISTIVE COATING (CO₄₀FE₄₀B₂₀) X (SiO₂)_{100-X}, *Tarasova Oksana*.
22. IMPLEMENTATION OF THE EDAC ALGORITHM FOR CALCULATING PHOTOELECTRON DIFFRACTION IN MATLAB, *Igor Arkhandeev*.
23. IN-PLANE POLARIZATION CONTRIBUTION TO THE VERTICAL PIEZORESPONSE FORCE MICROSCOPY SIGNAL MEDIATED BY THE CANTILEVER "BUCKLING", *Lyubov Gimadeeva*.
24. INFLUENCE OF ELECTRIC FIELD ON INITIAL DOMAIN STRUCTURE IN LITHIUM TANTALATE WITH COMPOSITIONAL GRADIENT, *Evgeny Greshnyakov*.
25. INFLUENCE OF ELECTRON EMISSION ON SPECTROSCOPIC PROPERTIES OF SOME PHOSPHATES WITH PR₃₊ IMPURITY, *Sviatoslav Kiselev*.
26. INFLUENCE OF SC₂O₃ ADDITIVES ON STRUCTURAL AND SPECTROSCOPIC CHARACTERISTICS OF TRANSPARENT TM:(Y,SC)₂O₃ CERAMICS, *Danil Vasin*.
27. INFLUENCE OF THE COMPOSITION OF THE VAPOR-GAS MEDIUM ON THE HARDNESS AND DEPOSITION RATE OF TIN COATINGS DEPOSITED BY THE METHOD OF ANODIC EVAPORATION, *Bryukhanova Yuliya*.
28. INFLUENCE OF VARIOUS RE ON MECHANISM OF THERMOLUMINESCENCE IN LITHIUM MAGNESIUM PHOSPHATE, *Kalinkin Mikhael*.
29. INHOMOGENEITY OF THE MAGNETIC CHARACTERISTICS OF AN AMORPHOUS COBALT-BASED ALLOY IN THE AS-QUENCHED STATE, *Egor Nekrasov*.
30. INVESTIGATION OF THE DNA MOLECULE RADIATION RESISTANCE BY SEMICLASSICAL SIMULATION, *Adelina Khasanova*.
31. KINETIC ANALYSIS OF THERMOLUMINESCENT GLOW CURVES IN ANION-DEFECTIVE CRYSTALS A-AL₂O₃ FROM -40 TO 300 °C, *Boyarintsev Alexander*.
32. LOW-FREQUENCY FLUCTUATIONS AT BOILING-UP OF SUPERHEATED LIQUID JETS, *Konstantin Busov*.
33. LOW-TEMPERATURE ATTENUATION OF ULTRASONIC WAVES BY JAHN-TELLER COMPLEXES IN A CAF₂: CR CRYSTAL, *Anna Bondarevskaya*.
34. LUMINESCENCE OF MONOCLINIC ZRO₂ AFTER ELECTRON IRRADIATION, *Marfin Alexandr*.
35. LUMINESCENCE OF SOLID SOLUTIONS BASED ON SILICATE-GERMANATE WITH APATITE STRUCTURE DOPED WITH EU₃₊ IONS, *Polina Mikhailova*.
36. MAGNETIC HYSTERESIS PROPERTIES OF TB-CO MULTILAYERED FILMS, *Ilya Makarochkin*.
37. MAGNETIC PROPERTIES AND CRYSTAL STRUCTURE OF NONSTOICHIOMETRIC COMPOUNDS TBFE₂MNX (0 ≤ X ≤ 0.4), *Alexander Bartashevich*.
38. MAGNETIC PROPERTIES AND MAGNETOCALORIC EFFECT IN FE(3)SE(4-Y)X(Y) (X=S, TE), *Maksim Klyucharev*.
39. MAGNETIC PROPERTIES OF AS-QUENCHED SOFT MAGNETIC ALLOYS AFTER HEAT TREATMENT IN NITROGEN ATMOSPHERE, *Artem Borodikhin*.

40. MATHEMATICAL MODELING OF CRYSTAL GROWTH IN A METASTABLE LIQUID TAKING INTO ACCOUNT THE GIBBS-THOMSON EFFECT, *Eugenia Makoveeva*.
41. METAL-DIELECTRIC TRANSITION AND MAGNETOABSORPTION OF LIGHT IN FILMS OF MAGNETIC OXIDES, *Yan Pyzhyanov*.
42. MODELING OF PLASMA DEPOSITION OF CARBON COATINGS BY MOLECULAR DYNAMICS, *Kirill Arslanov*.
43. NEAR-SURFACE CENTERS OF LUMINESCENCE IN TITANIUM DIOXIDE, *Michael Botov*.
44. NMR AND MAGNETIC SUSCEPTIBILITY OF CERIUM MONONITRIDE, *Almaz Sadykov*.
45. NUCLEAR MAGNETIC RESONANCE STUDY OF HYDROGEN DYNAMICS IN THE COMPLEX HYDRIDE $\text{LiBH}_4 \cdot \text{NH}_3$, *Roman Skoryunov*.
46. OPTICAL PROPERTIES OF ALUMINA CERAMIC DOPED BY YTTRIUM, *Viacheslav Churkin*.
47. OPTICALLY STIMULATED BLEACHING OF CAPTURE CENTERS IN HEXAGONAL BORON NITRIDE, *Ekaterina Silenkova*.
48. PECULIARITIES OF THE ANISOTROPY OF MAGNETOELASTIC WAVES SPECTRUM IN GALFENOL, *Sergey Savchenko*.
49. RESONANT PHOTOEMISSION OF INTERMETALLIC COMPOUNDS RMn_2Si_2 , *Ekaterina Ponomareva*.
50. SIGNIFICANT ENHANCEMENT OF OPTICAL PROPERTIES THROUGH METHYLCELLULOSE (MC)/ GADOLINIUM OXIDE COMPOSITES, *Henaish Ahmed*.
51. SITE-SELECTIVE LUMINESCENCE OF SOLID SOLUTIONS BASED ON SILICATE-TUNGSTATES DOPED WITH Eu^{3+} IONS, *Konstantin Mirgorodskikh*.
52. SPECTRALLY RESOLVED THERMOSTIMULATED LUMINESCENCE OF NANOTUBULAR ZIRCONIA AFTER UV IRRADIATION, *Ilya Petrenyov*.
53. STABILIZATION ENERGIES OF THE JAHN-TELLER COMPLEXES IN $\text{CaF}_2:\text{Cr}^{2+}$ CRYSTAL, *Wessam Hosseney*.
54. STRUCTURAL AND MAGNETIC PHASE TRANSITIONS IN THE $\text{GdFeAl}_1\text{-XSi}_6$ SYSTEM, *Sergey Platonov*.
55. STUDY OF 3D-KINETICS OF DOMAIN STRUCTURE DURING POLARIZATION REVERSAL IN SBN SINGLE CRYSTALS BY SECOND HARMONIC GENERATION MICROSCOPY, *Anikin Viktor*.
56. STUDY OF DIFFUSION PROCESSES IN THE CATION-DEFICIENT ANTIFERROMAGNETIC COMPOUND $\text{Fe}_6\text{Tl}_8\text{S}_8$, *Danil Akramov*.
57. STUDY OF OPTICAL PROPERTIES OF YTTRIUM OXIDE DOPED BY LITHIUM, *Vitaly Pankov*.
58. SYNTHESIS AND STUDY OF HIGHLY INTERCALATED FeTi_2S_4 COMPOUNDS, *Vadim Nosovets*.
59. TEMPERATURE BEHAVIOR OF OPTICAL ABSORPTION EDGE IN Bi^{3+} IONS IMPLANTED SILICA GLASS, *Mohamed Koubisy*.
60. TEMPERATURE FEATURES OF HAFNIA PHOTOLUMINESCENCE UNDER BAND-TO-BAND EXCITATION, *Artem Shilov*.
61. THE EFFECT OF NICKEL ON MAGNETIC CHARACTERISTICS IN THE RAYLEIGH REGION, *Ksenia Stepanova*.
62. THE EFFECT OF NONSTOICHIOMETRY ON ZNS QDS LUMINESCENCE IN AQUEOUS SOLUTION, *Ivan Popov*.
63. THE QUANTITATIVE ESTIMATION OF AMORPHOUS CONTENT AT THE ZIRCONIUM-CONTAINING CHLORALUMINATES BY THE XRD-BACKGROUND LEVEL, *Anastasia Chukina*.
64. THE RAMAN SCATTERING OF LINEAR-CHAINED CARBON ON PLATINUM SUBSTRATE: DFT SIMULATION, *Alexander Matitsev*.

65. THE STRUCTURE AND THE ELECTRICAL PROPERTIES OF HETEROGENEOUS NANOSYSTEMS BASED ON ZNO AND SNO₂ OXIDE SEMICONDUCTORS, *Olga Zhilova*.
66. THE STRUCTURE OF CLOUDY ZONE OF TAENITE AS AN INDICATOR OF SHOCK AND THERMAL EFFECTS, *Grigoriy Yakovlev*.
67. THE STUDY OF NANOSCALE COSMIC DUST PARTICLES FROM BLUE ICE FIELDS OF ANTARCTICA, *Razilia Muftakhetdinova*.
68. VIBRATIONAL PROPERTIES OF PHOTSENSITIVE OXYGEN DEFECTS IN SIO₂/GEO₂-BASED STRUCTURES, *Alexey Kislov*.

Panel 3.

Poster reports

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1. CONTROL DEVICE OF THE EXPERIMENTAL SETUP FOR RADON FLUX DENSITY MEASURING, Ilya Semenov.
2. DEVICE FOR MONITORING SAMPLE'S POSITIONING DURING MICROSCOPIC EXAMINATIONS, Dmitrii Poletaev.
3. DF-VARIOMETER BASED ON A SINGLE-COMPONENT PROTON TYPE ABSOLUTE MAGNETOMETER, Andrey Fedorov.
4. EDUCATIONAL LABORATORY DEVICE FOR SCIENTIFIC AND EDUCATIONAL PROJECTS, Sinev Maksim Michailovich.
5. HIGH-POWER RADIO FREQUENCY GENERATOR USING MOSFETS, Vitaly Patrakov.
6. MACHINE VISION BASED LIQUID CALORIMETER READINGS REGISTRATION SYSTEM, Leonid Lobanov.
7. PRACTICAL IMPLEMENTATION OF THE ALGORITHM FOR PROCESSING SIGNALS OBTAINED BY MAGNETIC FLAW DETECTION OF ROLLED STEEL, Andrey Pastukhov.
8. POWER SUPPLY UNIT FOR ELECTROSPINNING MACHINE, Andrey Mironov.
9. RESULTS OF A PRELIMINARY MAGNETIC SURVEY AT DYATLOV PASS USING A PROFESSIONAL MMPOS-2GPS OVERHAUSER MAGNETOMETER GRADIOMETER, Andrey Sergeev.
10. SOFTWARE AND HARDWARE SYSTEM FOR THERMAL VACUUM DEPOSITION OF MATERIALS, Alexei Sumarev.
11. SOFTWARE AND HARDWARE UPGRADE OF THE PHOTOLUMINESCENCE SPECTROSCOPY SETUP, Alexander Lukashov.
12. SYSTEM FOR GROWING ALKALI-HALIDE CRYSTALS WITH AN ADJUSTED TEMPERATURE GRADIENT, Anton Mamonov.
13. TRANSFORMER BUSHING WITH OIL-PAPER INNER 110 KV INSULATION, Kaisar Salykov.

Panel 4.

Poster reports

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1. ADSORPTION OF CHROMIUM (VI) ON MONTMORILLONITE MODIFIED BY NANO-IRON, *Galina Shilenko*.
2. CHANGE IN THE PHASE COMPOSITION OF CHLOROALUMINATE MELTS IN CONTACT WITH AIR ATMOSPHERE, *Anna Ivshina*.
3. COMPARISON OF SORPTION CHARACTERISTICS OF VARIOUS SORBENTS FOR PRELIMINARY CONCENTRATION OF STRONTIUM FROM NATURAL WATERS, *Cherepanova Maria*.
4. DESORPTION OF GOLD FROM THE SURFACE OF SULFOETHYLATED POLYALLYLAMINE, *Daria Gavrilova*.
5. DETERMINATION OF CARBON AND OTHER COMPONENTS OF CAST IRONS BY XRF, *Marina Shikhaleeva*.
6. DETERMINATION OF RADON, URANIUM AND THORIUM IN THE SPRINGS OF YEKATERINBURG AND THE SVERDLOVSK REGION, *Yuliya Nasonova*.
7. THE STUDY OF POLONIUM-210 SORPTION BY A THIN-LAYER MNO₂-CTA SORBENT, *Elena Kulyashova*.
8. STUDY OF RADIUM-223 SORPTION BY THIN-LAYER SORBENTS BASED ON MANGANESE DIOXIDE ON VARIOUS POLYMER SUPPORTS, *Varara Filinkova*.
9. DETERMINATION OF THE CONTENT OF ASH-FORMING ELEMENTS IN COALS BY THE X-RAY FLUORESCENT METHOD, *Ksenia Abasova*.
10. DETERMINATION OF THE CONTENT OF BIOLOGICALLY-ACTIVE COMPOUNDS OF POLYPHENOL NATURE IN EXTRACTS OF RAW MATERIALS, *Ekaterina Khrushkova*.
11. DETERMINATION OF THE DI-(2-ETHYLHEXYL)PHOSPHORIC ACID BY SPECTROPHOTOMETRY AND GAS CHROMATOGRAPHY, *Mariia Platonova*.
12. DETERMINATION OF THE THERMODYNAMIC CHARACTERISTICS OF CERIUM IN (LI-K-CS) CL, *Maryanova Ksenia*.
13. DEVELOPMENT AND EVALUATION OF IN SITU GELS CONTAINING ACETAZOLAMIDE MICROSPONGES FOR OPHTHALMIC DELIVERY, *Obiedallah M.*
14. DEVELOPMENT OF A METHOD FOR DETERMINING MICROPLASTICS IN AN URBAN ENVIRONMENT, *Kristina Popilovskaya*.
15. DEVELOPMENT OF A METHOD FOR DETERMINING SODIUM DODECYL SULFATE IN THE MICELLAR PHASE AFTER INTERCALATION OF LAYERED HYDROXIDES, *Merkucheva Ksenia*.
16. DEVELOPMENT OF A METHOD FOR DETERMINING THE OXYGEN CONTENT IN A MIXTURE OF LITHIUM AND BERYLLIUM FLUORIDES BY CARRIER GAS HOT EXTRACTION, *Elena Kartashova*.
17. EFFECT OF THE STAGE OF BEAD MILLING OF A SUSPENSION OF OXIDE CARRIERS ON THE TEXTURAL, STRUCTURAL AND CATALYTIC PROPERTIES OF THREE-WAY CATALYSTS, *Maria Pronina*.
18. ELECTRICAL CONDUCTIVITY OF COMPOSITES (1-X)EU₂(WO₄)₃-XWO₃, *Olga Shulga*.

19. ELECTROCATALYTIC PROPERTIES OF PALLADIUM (II) ORGANIC COMPLEXES IN THE ENZYMELESS ELECTROCHEMICAL OXIDATION OF GLUCOSE, *Marina Devyatova*.
20. ELECTROCHEMICAL DETERMINATION OF NITROBENZENE IN HONEY SAMPLES ON A GLASS-CARBON ELECTRODE MODIFIED WITH CNT AND DERIVATIVES OF 1,3- / 1,4-DIAZINES, *Matyasheva Veronika Sergeevna*.
21. ELECTROCHEMICAL STUDY OF Li₂MOO₄-K₂MOO₄-MOO₃-UO₂MOO₄ MELTS, *Milana Kitik*.
22. ELECTROTHERMAL ATOMIC ABSORPTION DETERMINATION OF GOLD AFTER EXTRACTION CONCENTRATING, *Igosheva Victoria*.
23. FATTY ACID COMPOSITION OF FOSSILS FROM PERMIAN DEPOSITS BY GC/MS, *Borodin Nikolai Denisovich*.
24. GALLIUM ADSORPTION ON MECHANICALLY ACTIVATED RUTILE SUSPENSION, *Anna Korobitsyna*.
25. GRAFTING OF (3-CHLOROPROPYL)-TRIMETHOXY SILANE ON HALLOYSITE NANOTUBES SURFACE, *Asmaa Abu El-soad*.
26. HYDROCHEMICAL FLUORINATION OF OXIDIZED TECHNOGENIC WASTE, *Nadya Nezdoymina*.
27. IMPROVEMENT OF THE METHOD OF ANALYSIS OF SCANDIUM OXIDE BY THE METHOD OF ATOMIC EMISSION WITH ARC EXCITATION, *Daria Romanova*.
28. INFLUENCE OF THE HEAT TREATMENT REGIME ON THE PROPERTIES OF HYBRID LUMINOPHOR POWDERS OBTAINED ON THE BASIS OF LAYERED HYDROXIDE OF GADOLINIUM-TERBIUM, *Kosykh Anastasiya*.
29. INFLUENCE OF THE INITIAL SOLUTION OF ZIRCONIUM OXONITRATE ON HYDRATED ZIRCONIUM OXIDE PROPERTIES, *Alyona Zhesteva*.
30. INVESTIGATION OF ANTIOXIDANT PROPERTIES OF POTENTIAL DRUGS FOR THERAPY OF NEURODEGENERATIVE DISEASES, *Maria Borisova*.
31. INVESTIGATION OF SORPTION PROPERTIES OF LA-DOPED HYDRATED ZIRCONIUM OXIDE, *Artem Vereshchagin*.
32. INVESTIGATION OF THE EFFECT OF ALLOYING ADDITIVES ON CERAMICS BASED ON ZIRCONIUM DIOXIDE, *Anastasia Zebzeeva*.
33. INVESTIGATION OF THE INFLUENCE OF CONTROLLED TWO-JET PRECIPITATION CONDITIONS ON THE PROPERTIES OF ALUMINUM OXIDE, *Polina Solodovnikova*.
34. KINETIC OF SORPTION OF SCANDIUM AND IMPURITIES FROM HYDROLISIS SULFURIC ACID BY AMPHOLYTE PUROLIE S950, *Svetlana Titova*.
35. LEACHING OF URANIUM FROM SOLID RADIOACTIVE WASTE BY HYDROCHLORIC ACID SOLUTIONS, *Ilya Evdokimov*.
36. MODELING OF HYDRODYNAMICS OF A SYNGAS SOLID-SORBENT DESULFURIZATION REACTOR, *Ian Morozov*.
37. PALLADIUM REDUCTION FROM MOLTEN EUTECTIC MIXTURE OF LITHIUM, POTASSIUM AND CAESIUM CHLORIDES, *Kirill Strepetov*.
38. PHOTOPHYSICAL PROPERTIES OF PENTAFLUORO-ARYL-2H-IMIDAZOLES AND THEIR APPLICATION AS PH-SENSITIVE FLUOROPHORS FOR DETERMINING THE ACIDITY OF SALIVA, *Arina Petukhova*.
39. PHYSICAL AND CHEMICAL CHARACTERISTICS OF THE INSOLUBLE RESIDUE OF HYDRANIC ACID LEACHING OF URANIUM FROM SLUDGE, *Maria Berezina*.
40. POTENTIOMETRIC STUDY OF GALLIUM CONTAINING CHLORIDE MELTS, *Oleg Tokarev*.

41. PREPARATION AND CHARACTERIZATION OF CROSS-LINKED PECTIN NANOCAPSULES AS A DRUG DELIVERY SYSTEM, *Obiedallah Manar*.
42. PREPARATION AND STUDY OF THE PROPERTIES OF NANOCRYSTALLINE NIOBIUM CARBIDE, *Angelina Pikulo*.
43. PRODUCTION OF ELECTRICALLY CONDUCTIVE CERAMICS BASED ON ZIRCONIUM DIOXIDE ZRO₂-Y₂O₃-GD₂O₃ AND ZRO₂-Y₂O₃-YB₂O₃, *Yulia Mityushova*.
44. PRODUCTION OF ZIRCONIUM DIOXIDE POWDERS FOR ELECTRIC CONDUCTIVE CERAMICS, *Dina Sultanova*.
45. RECYCLING OF TECHNOGENIC WASTES WITH CO₂ UTILIZATION, *Tkachenko Ekaterina*.
46. REDOX PROPERTIES OF URANIUM IN MOLTEN EUTECTIC MIXTURE OF LITHIUM, SODIUM AND POTASSIUM FLUORIDES, *Viktoria Zakharova*.
47. RESEARCH OF AN ENZYME-FREE FUEL CELL BASED ON DOUBLE PEROVSKITES FOR THE DETECTION OF HYDROGEN PEROXIDE, *Anastasia Shalamova*.
48. ROLE OF THE SUBSTRATE IN THE FORMATION OF CDXPB₁-XS FILMS BY CHEMICAL DEPOSITION, *Andrei Pozdin*.
49. SORPTION OF SCANDIUM FROM SUCCINIC ACID SOLUTIONS OBTAINED BY RED MUD LEACHING, *Bunyod Oqilov*.
50. SORPTION PROCESSING OF PRODUCTIVE SOLUTIONS OBTAINED BY SULFURIC ACID LEACHING OF URANIUM FROM SLUDGE, *Ksenia Nalivaiko*.
51. STEPWISE LEACHING AND SELECTIVE EXTRACTION OF ZINC FROM DUST OF FERROUS METALLURGY PRODUCTION, *Alexander Ivanov*.
52. STRONTIUM AND BARIUM PHOSPHATES PRECIPITATION FROM ALKALI CHLORIDE BASED MELTS CONTAINING RARE EARTH METAL IONS, *Khomutinina Darya*.
53. STUDY KINETICS OF OXIDATION OF CATION EXCHANGE RESIN KU-2×8 WITH AQUEOUS SOLUTION OF HYDROGEN PEROXIDE, *Kozlova Marina*.
54. DETERMINATION OF THE CHEMICAL COMPOSITION OF ASH USING X-RAY FLUORESCENCE ANALYSIS, *Kristina Abramova*.
55. STUDY OF SORPTION OF STRONTIUM-90 WITH GRANULAR NATURAL ALUMOSILICATE, *Zenkova Kseniya*.
56. STUDY OF THE INFLUENCE OF A STABILIZER ADDITIVE ON THE PROPERTIES OF DIOXIDE ZIRCONIA, *Anna Dankova*.
57. STUDY OF THE INFLUENCE OF THE SYNTHESIS METHOD ON THE SURFACE PROPERTIES OF SOLID SOLUTIONS BASED ON ZIRCONIUM AND CERIUM OXIDES, *Guryanova Anna*.
58. SYNTHESIS OF CDS FILMS ON GLASS BY THE AMMONIA-ALKALINE SCHEME, *Maxim Pribytov*.
59. DETERMINATION OF SULFUR CONTENT OF VARIOUS OXIDATION STATES BY WD-XRF, *Ilya Pechishchev*.
60. THERMAL DECOMPOSITION OF DERIVATIVES POLYCHLOROBIPHENYLS, *Anna Maiorova*.
61. THERMAL DESORPTION – GAS CHROMATOGRAPHY ANALYSIS OF HERBAL MIXTURES USED IN RITUAL CEREMONIES BY THE SARGAT CULTURE, *Arina Khorkova*.
62. TUNGSTEN SORPTION BY ANION-EXCHANGER PUROLITE A830, *Anna Baldina*.
63. DEPENDING ELECTRODE POTENTIAL OF U-PD ALLOYS IN 3LiCl–2KCl–UCl₃ MELTS AT DIFFERENT TEMPERATURES, *Nikitin Dmitry*.

Panel 5.

Poster reports

[**Return to the conference program**](#)

1. GROWING OF BORON DOPED TITANIA NANOTUBES FOR PHOTOELECTROCHEMICAL WATER SPILITTING PROCESS, *Fedor Zykov*.
2. ADSORPTION OF CHROMIUM(VI) ON MECHANICALLY ACTIVATED GRAPHITE, *Irina Khachina*.
3. INFLUENCE OF THE STIRRING SPEED PRECIPITATION ON GRANULOMETRIC COMPOSITION OF CHROMIUM HYDROXIDE AND OXIDE PARTICLES, *Yulia Kurasova*.
4. FORMATION OF RECRYSTALLIZATION TEXTURE IN A COPPER CAPILLARY TUBE, *Maria Zorina*.
5. APPLICATION OF AN ENERGY MODEL TO EXPLAIN TEXTURE OF CRYSTALLINITIES IN THE THIN FILMS OF Al_2O_3 , *Mark Erofeev*.
6. MECHANOSYNTHESIS OF NANOCOMPOSITES BASED ON GRAPHITE AND TRANSITIONAL METAL OXIDES AND THEIR ELECTROCHEMICAL CHARACTERISTICS, *Skrylnik Mariya*.
7. PREPARATION OF A COMPOSITE MATERIAL BASED ON ZrO_2 -7MASS% Y_2O_3 SYNTHESIZED UNDER VARIOUS DEPOSITION CONDITIONS, *Ilsur Zakirov*.
8. TEXTURE INFLUENCE ON THE STAMPING CAPACITY OF SHEET METAL, *Konstantin Serkov*.
9. EFFECTS OF NON-ADDITIVITY OF METAL DESTRUCTION BY CAVITATION IMPACT, *Aleksey Kostin*.
10. INFLUENCE OF SURFACE MODIFICATION METHODS ON THE CORROSION PROPERTIES OF NICKEL ALLOY KHN62M IN MOLTEN SALTS BASED ON FLINAK, *Anastasia Ivanovna*.
11. CORROSION RESISTANCE OF SILICON CARBIDE IN MOLTEN FLINAK BASED SALTS, *Ruslan Alimgulov*.
12. OBTAINING OF COMPLEX NANOPARTICLES BY THE SPARK DISCHARGE METHOD, *Artem Maksimov*.
13. THERMAL SYNTHESIS PARAMETERS EFFECT ON g- C_3N_4 STRUCTURAL AND OPTICAL PROPERTIES, *Nikolay Martemianov*.
14. INVESTIGATION OF MAGNETIC NANOPARTICLES $\text{Fe}_{0.5}\text{Co}_{0.5}$ BY RESONANCE SPECTROSCOPY, *Dmitriy Prokopyev*.
15. STRUCTURAL AND MAGNETIC PROPERTIES OF SELF-DOPED $\text{TM}_2\text{-XMNXO}_3$ MANGANITE, *Cherepanova Liubov*.
16. DETERMINATION OF THE MINIMUM CONTENT OF NANOPOWDERS $(\text{ZrO}_2\text{-Y}_2\text{O}_3)$ AND Al_2O_3 IN POWDER COMPOSITIONS $(\text{ZrO}_2\text{-Y}_2\text{O}_3)\text{-}(\text{ZrO}_2\text{-Y}_2\text{O}_3)$ AND $(\text{ZrO}_2\text{-Y}_2\text{O}_3)\text{-Al}_2\text{O}_3$, *Irina Nesterova*.
17. PRODUCTION OF POWDERS BASED ON ZIRCONIUM DIOXIDE FOR ELECTRICALLY CONDUCTING CERAMICS, *Natalya Khoroshavtseva*.
18. STUDY OF EFFECT OF THE SPECIFIC SURFACE AREA OF ZIRCONIUM DIOXIDE POWDER ON THE SINTERED DENSITY, *Dmitry Polivoda*.
19. SOLID PHASE SYNTHESIS OF LUMINESCENT CERAMICS BASED ON ALUMINUM, YTTRIUM AND TITANIUM OXIDES, *Sergey Zvonarev*.
20. VIRTUAL SIMULATION OF MODIFYING THE STRUCTURE OF TECHNICAL CERAMICS, *Ivan Chernetskiy*.
21. EFFECT OF HEAT TREATMENT ON THE STRUCTURE AND COEFFICIENT OF THERMAL EMF OF FILMS, *Alina Chetverikova*.

22. EMF METHOD AS A SIMPLE TOOL IN STUDYING THE ELECTRONIC STRUCTURE OF INTERCALATE COMPOUNDS OF THE IRON TRIAD (Me_xTiSe_2), *Alexsandra Kuznetsova*.
23. SYNTHESIS FEATURES AND DETERMINATION OF OXYGEN CONTENT IN DOUBLE PEROVSKITE-LIKE MANGANITES OF COMPOSITION $\text{LnBaMn}_2\text{O}_{6-\Delta}$ ($\text{Ln} = \text{Nd}, \text{Sm}$), *Anastasia Shalamova*.
24. HIGH-TEMPERATURE REDOX BEHAVIOUR OF DOUBLE PEROVSKITE Ba_2CuWO_6 , *Roman Shishkin*.
25. SYNTESYS AND STRUCTURE OF THE $\text{Nd}_{1-x}\text{Ba}_x\text{Co}_{1-y}\text{Fe}_y\text{O}_{3-D}$ SOLID SOLUTION, *Valeriia Legonkova*.
26. THERMODYNAMICS OF DISORDERING OF $\text{YBaCo}_2\text{O}_{6-\Delta}$, *Yagovitin Roman*.
27. CRYSTAL STRUCTURE AND PHYSICOCHEMICAL PROPERTIES OF $\text{EuCo}_x\text{Fe}_{1-x}\text{O}_{3-\Delta}$ ($0 \leq x \leq 1$) COMPLEX OXIDES, *Alina Alkhamova*.
28. STRUCTURE AND ELECTRICAL PROPERTIES OF THE SOLID SOLUTION $\text{Gd}_{2-x}\text{Mg}_x\text{Zr}_2\text{O}_{7-D}$, *Anastasia Buzina*.
29. PHASE EQUILIBRIUM IN THE $1/2\text{Dy}_2\text{O}_3\text{--SrO--}1/2\text{Fe}_2\text{O}_3$ SYSTEM AT 1100°C , *Anastasia Vizner*.
30. STRUCTURE AND PHYSICOCHEMICAL PROPERTIES OF COMPLEX OXIDES $\text{Y}_{1.2}\text{Ba}_{1.8}\text{Fe}_{3-x}\text{Co}_x\text{O}_{8+\Delta}$ ($x = 1.02, 1.05$ AND 1.08), *Solomakhina Elizaveta*.
31. OBTAINING AND STUDYING PROPERTIES HETEROPHASE SAMPLES IN A SYSTEM BASED ON Al-STABILIZED BARIUM INDATE, *Khristova Maria*.
32. INVESTIGATION OF CRYSTAL STRUCTURE AND PROPERTIES OF $\text{Sm}_{0.4}\text{Ba}_{0.6}\text{Fe}_{1-x}\text{Me}_x\text{O}_{3-\Delta}$ ($\text{Me} = \text{Ni}, \text{Co}, \text{Cu}$; $x=0\text{--}0.3$) PEROVSKITE-TYPE OXIDES, *Ivan Golovachev*.
33. OPTICAL PROPERTIES OF $(\text{In}_2\text{O}_3/\text{SiO}_2)_{25}$ MULTILAYER STRUCTURES, *Sergei Pankov*.
34. SPECIFIC FEATURES OF PHASE EQUILIBRIUMS IN $\text{YFeO}_3 - \text{YCoO}_3$ SYSTEM IN AIR, *Anna Bryuzgina*.
35. A QUANTITATIVE DESCRIPTION FOR CRYSTALLOGRAPHY TEXTURE OUT OF THE INVERSE POLE FIGURES, *Konstantin Serkov*.
36. CRYSTAL STRUCTURE AND PROPERTIES OF $\text{Ba}_{1-x}\text{Ln}_x\text{Fe}_{1-y}\text{Co}_y\text{O}_{3-D}$ ($\text{Ln}=\text{Eu}, \text{Gd}$) SOLID SOLUTIONS, *Elena Trapeznikova*.
37. LASER ETCHING OF QUASI-1D TiS_3 NANORIBBONS BY RAMAN SPECTROPHOTOMETER, *Marwa El-Sayed*.
38. INVESTIGATION ON ELECTROREDUCTION OF Cu(II) USING A NANOCOMPOSITE TRACK MEMBRANE ELECTRODE, *Ilya Kuklin*.
39. ELECTRIC PROPERTIES $\text{La}_2\text{BaIn}_{1.9}\text{Ti}_{0.1}\text{O}_{7.05}$, *Elizaveta Borodulina*.
40. PROTONIC CONDUCTIVITY IN THE NEW COMPLEX OXIDE $\text{La}_2\text{BaIn}_{1.9}\text{Zr}_{0.1}\text{O}_{7.05}$, *Anastasia Ivanova*.
41. HYDRATION PROCESSES IN ACCEPTOR- AND DONOR-DOPED PROTONIC CONDUCTORS BASED ON BaLaInO_4 , *Anzhelika Galisheva*.
42. SYNTHESIS AND TRANSPORT PROPERTIES OF NEW COMPLEX OXIDE $\text{BaLaIn}_{0.5}\text{Y}_{0.5}\text{O}_4$ WITH RUDDLESSEN-POPPER STRUCTURE, *Polina Cheremisina*.
43. SYNTHESIS AND TRANSPORTATION PROPERTIES $\text{BaLaIn}_{1-x}\text{Sc}_x\text{O}_4$, *Ekaterina Abakumova*.
44. NEW PROTON CONDUCTORS $\text{La}_{1.9}\text{M}_{0.1}\text{BaIn}_2\text{O}_{6.95}$ ($\text{M}=\text{Ca}, \text{Sr}, \text{Ba}$) WITH THE RADDLESSEN-POPPER STRUCTURE: SYNTHESIS AND TRANSPORT PROPERTIES, *Irina Fedorova*.

45. HYDRATION AND ELECTROCONDUCTIVITY OF THE DOPED $\text{BaLa}_2\text{In}_2\text{O}_7$, *Hala Kreimesh*.
46. Sr-Ho-Fe-O SYSTEM: CRYSTALLINE STRUCTURE AND OXYGEN NONSTOICHIOMETRY OF COMPLEX OXIDES, *Yana Chekushina*.
47. SYNTHESIS AND TRANSPORT PROPERTIES OF THE PEROVSKITE-LIKE OXYGEN-DEFICIENT COMPOUNDS $\text{Ba}_2\text{MZrO}_{5.5}$ (M – Er, Yb), *Roman Andreev*.
48. SYNTHESIS, THERMAL AND CONDUCTIVITY PROPERTIES OF PEROVSKITES BASED ON CeAlO_3 , *Alexey Smelov*.
49. CONDUCTIVITY OF PEROVSKITE-LIKE SOLID SOLUTIONS $\text{LaIn}_{1-x}\text{Zn}_x\text{O}_{3-1/2x}$, *Anastasia Egorova*.
50. STUDY OF THE VOLUMETRIC ELECTRICAL RESISTANCE OF ORGANOSILICON POLYMER COMPOSITES MODIFIED WITH HYBRID FILLER, *Oksana Semenukha*.
51. RECOMMENDATIONS FOR THE REPAIR OF GAS PIPELINE SECTIONS CONTAINING SCC DEFECTS UP TO 10% OF THE PIPE WALL DEPTH, *Danil Novgorodov*.

Panel 6.

Poster reports

[**Return to the conference program**](#)

1. SPIN DYNAMICS SIMULATION OF MULTILAYER SYSTEM, *Deviatov Aleksander.*
2. NUMERICAL SIMULATION OF GAS FLOWS IN THE HOLWECK MOLECULAR PUMP, *Vadim Kirichenko.*
3. DATA PROCESSING OF SECONDARY ION MASS SPECTROMETRY: ANALYSIS OF ATMOSPHERIC AEROSOL SAMPLES FROM 2020, *Sviatoslav Kiselyov.*
4. ALGORITHM FOR SELECTING THE TYPE OF DISSIPATIVE FUNCTION BASED ON THE PRINCIPLE OF MAXIMUM ENTROPY PRODUCTION, *Ilya Bannikov.*
5. TIME-OPTIMAL GUIDANCE ALGORITHM OF THE NUCLEAR FUEL LOADING MECHANISM IN FAST NEUTRON REACTORS, *Daria Kineva.*
6. ANALYSIS OF THE DIVERSITY OF STOCHASTIC REGIMES IN THE MODEL OF COUPLED POPULATIONS, *Belyaev Alexander.*
7. INFLUENCE OF NON- ISOTHERMALITY ON THE LOSS OF STABILITY DURING RADIAL DISPLACEMENT OF FLUID IN THE HELE-SHOW CELL, *Alexander Chernoskutov.*
8. CONDITIONS FOR THE ORIGIN OF DENDRITIC STRUCTURES ON THE WATER SURFACE, *Daria Rusova.*
9. VIBRATION STAND FOR STUDYING THE ELECTRICAL CONDUCTIVITY OF MIXTURES OF CONDUCTIVE AND NON-CONDUCTIVE PARTICLES, *Gloria Pozigun.*
10. MODELING THERMAL TREE STRUCTURES ON A WATER SURFACE IN COMSOL MULTIPHYSICS, *Ivan Kerekelitsa.*
11. DEVELOPMENT OF A NEURAL NETWORK ALGORITHM FOR FINDING OPTIMAL STRATEGIES FOR THE QUANTUM HEX GAME, *Mikhail Bikmurzin.*
12. INTERDISCIPLINARY DESIGN OF MECHATRONIC SYSTEMS BASED ON THE INTEGRATION OF RUSSIAN SOFTWARE, *Ivan Pronichev.*
13. INTEGRATION OF CAE AND CAM SOFTWARE AS PART OF DISTRIBUTED PRODUCTION, *Alexey Ogorodnikov.*
14. STOCHASTIC SENSITIVITY ANALYSIS OF PATTERNS IN POPULATION DYNAMICS MODELS, *Alexander Kolinichenko.*
15. ABOUT AUGMENTED REALITY TECHNOLOGY AND RECOGNITION METHODS, *Kristina Kasoyan.*
16. SMARTPHONE-BASED DATA ACQUISITION SYSTEM WITH BLUETOOTH INTERFACE, *Anatoliy Khoroshev.*
17. ANALYSIS OF SENTENCE LENGTHS IN PUBLIC SPEAKING BASED ON THE MATERIAL OF THE ANNUAL SPEECHES PARTY LEADERS OF THE UK, *Natalia Tsizhmovska.*
18. INTERACTIVE MAGNETIC FIELD SIMULATION OF A PIPELINE ELEMENT, *Lev Muravyev.*

Panel 7.

Poster reports

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1. A METHOD OF PRODUCTION A MICROFLUIDIC PAPER-BASED TEST SYSTEMS, *Azalia Khasanova.*
2. APPLICATION OF RADIATION TECHNOLOGIES AND IDENTIFICATION OF IRRADIATED POULTRY MEAT, *Alexandra Alekseevna.*
3. BIOPHYSICAL PROBLEMS OF LOW-FREQUENCY MAGNETOTHERAPY, *Evgeny Uskov.*
4. DETECTION OF IMPURITIES IN WATER BY USING NANOSTRUCTURES, *Igor Kakorin.*
5. DEVELOPMENT OF METHOD FOR ANALYSIS OF THE T-TUBULAR SYSTEM IN RAT CARDIOMYOCYTES, *Baynova Vicktoria.*
6. EFFECT OF CERIUM OXIDE NANOPARTICLES DOPING WITH RARE EARTH ELEMENTS ON CATALYTIC ACTIVITY, *Maria Zafirova.*
7. HUMAN ACTIVITY RECOGNITION BY A CONVOLUTIONAL NEURAL NETWORKS USING AN ACCELEROMETER FROM A MICROCONTROLLER-BASED DEBUG BOARD, *Ivan Belousov.*
8. INVESTIGATION OF THE EFFECT OF CERIUM DIOXIDE NANOPARTICLES ON THE RADIOSENSITIVITY OF LYMPHOSARCOMA, *Tatiana Sultanova.*
9. MALTODEXTRIN-COATED CERIUM OXIDE NANOPARTICLES AS MULTIFUNCTIONAL NANOZYME, *Natalia Ofitserova.*
10. AUTOMATED COUNTING OF MICROORGANISMS AND SHAPED ELEMENTS IN THE GORYAEV CHAMBER USING CONVOLUTIONAL NEURAL NETWORKS FOR PREDICTING THEIR BEHAVIOUR, *Leonid Pashutin.*
11. MODERNIZATION OF THE MAGNETIC FIELD PULSE GENERATION FACILITY, *Evgeniia Silina.*
12. METHODOLOGICAL ASPECTS OF CONVENIENT MICROTOOLS MANUFACTURING FOR CELL CULTURES MANIPULATING, *Vlasova Anastasia.*
13. MAGNETODYNAMIC STUDY OF THE FERROLIQUID CURRENT IN BLOOD VESSELS OF COMPLEX GEOMETRY: FOCUS ON MAGNETIC DETECTION SYSTEMS, *Nikita Kozlov.*
14. BRAIN TUMOR SEGMENTATION IN MRI IMAGES WITH NEURAL NETWORKS, *Ivan Novoselov.*
15. ASSESSMENT AND EVALUATION HEALTH RISKS OF HEAVY METALS IN INDOOR AND OUTDOOR AIR WITH X-RAY FLUORESCENCE (WDX), *Mostafa Mostafa.*
16. APPLICATION OF FRACTIONATION OF RADIOTHERAPY METHODS FOR CALCULATING BIOLOGICALLY EFFECTIVE DOSES, *Alina Safronova.*
17. PORTABLE MEDICAL RADIOMETRIC SYSTEM, *Sevastyanov Maxim.*
18. PROSPECTS FOR USE RARE EARTH METAL OXIDES NANOPARTICLES IN BIOLOGY AND MEDICINE, *Aleksandra Myshkina.*
19. QUALITY CONTROL OF CHEESE BRAND «RUSSIAN», *Irina Geide.*

20. APPLICATION WITH A GRAPHICAL USER INTERFACE FOR SEGMENTATION OF BIOLOGICAL MICROOBJECTS USING MATLAB, *Ayupova Alina*.
21. THE REPARATIVE REGENERATION OF BONE TISSUE WITH THE APPLICATION OF COLLAGEN-CONTAINING GRAFTS, *Vladimir Usachev*.
22. THE ROLE OF CLUSTERIZATION PARTICLES IN MAGNETIC HYPERTHERMIA AFFECTED BY A MAGNETIC FIELD, *Ali Abu-Bakr*.
23. TEFLON-4 IN HIGH-DOSE EPR DOSIMETRY FOR ROUTINE MEASUREMENTS, *Ekaterina Agdantseva*.
24. SEMANTIC SEGMENTATION AND QUANTIFICATION OF LUNG LESIONS CAUSED BY SARS-COV-2 INFECTION BY MACHINE LEARNING METHODS, *Michael Artemyev*.
25. RESEARCH OF THE EFFICIENCY OF BANANAS' RADIATION TREATMENT, *Valeria Uzhneva*.
26. STOCHASTIC CALCIUM OSCILLATIONS IN THE DYNAMICAL LI-RINZEL MODEL, *Anna Stepanova*.
27. MECHANICAL PROPERTIES OF FERROGELS BASED ON POLYACRYLAMIDE FILLED WITH STRONTIUM FERRITE MICROPARTICLES STUDIED USING STRESS-STRAIN OR ULTRASONOGRAPHY TESTS, *Antonina Bugayova*.
28. RESEARCH OF ANTIOXIDANT ACTIVITY OF EXTRACTS FROM NATURAL RAW MATERIALS, *Irina Dragan*.

1. CS-137 ACTIVITY IN FLY ASH FROM THERMAL ELECTRIC POWER STATIONS, *Hyam Khalaf*.
2. RADIATION SHIELDING PROPERTIES OF METHYLCELLULOSE (MC)/ GADOLINIUM OXIDE COMPOSITES, *Mostafa Mostafa*.
3. RADIUM MEASUREMENTS IN GROUNDWATER FROM THE CENTRAL REGION OF SAUDI ARABIA USING GAMMA SPECTROMETRY PRECEDED BY ION EXCHANGE, *El-Taheer Atef*.
4. RADON CONCENTRATION AND RADON EXHALATION RATE FOR GRANITE ROCKS, CENTRAL EASTERN DESERT, EGYPT, *Essam Sidique*.
5. RESEARCH OF CHANGE IN NUCLIDE COMPOSITION OF PLUTONIUM WITH MULTIPLE RECYCLING OF MOX FUEL IN A TWO-COMPONENT NUCLEAR POWER SYSTEM, *Dmitriy Kosyakin*.
6. THE POSSIBILITY OF TRASMUTATION OF MINOR ACTINIDES IN THE URANIUM-TORIUM FUEL CYCLE, *Aleksandr Mikhalev*.
7. CALCULATED JUSTIFICATION OF EXPERIMENTS WITH MOLTEN-SALT FUEL COMPOSITIONS IN THE LOOP OF THE MBIR REACTOR, *Daria Kuzenkova*.
8. RESEARCH OF THE OPTIMAL PLACEMENT OF A BURNABLE ABSORBER IN FUEL ASSEMBLY OF A WWER-1200, *Ruslan Vnukov*.
9. DISTRIBUTION OF RADIOELEMENTS IN THE DIFFERENT ROCKS AROUND UM SALATIT MOUNTAIN AREA, EASTERN DESERT, EGYPT, *Mohamed Ghoneim*.

1. INFLUENCE OF MODIFICATION OF PULP AND PAPER MATERIALS ON THEIR MECHANICAL PROPERTIES, *Basyrova Sara*.
2. COLLISION OF TWO-DIMENSIONAL LIGHT BULLETS IN THE MEDIUM OF ORIENTED CARBON NANOTUBES, *Ilya Dvuzhilov*.
3. STUDY OF THE FIELD EMISSION PROPERTIES OF A TUNGSTEN CATHODE WITH A NANOSTRUCTURED SURFACE, *Pavel Mikhailov*.
4. EFFECT METALORGANIC FRAMEWORK ON THE ELECTROCHEMICAL PERFORMANCE OF LICOP₄, *Abdelaziz Aboraia*.
5. DENSITY FUNCTIONAL THEORY CALCULATIONS FOR THE INTERACTION BETWEEN ALANINE AND B-C-N SHEET, *Marina Kudinova*.
6. SIMPLE EXPRESSIONS FOR THE QUANTUM ENTANGLEMENT OF COUPLED HARMONIC OSCILLATORS, *Yuliana Tsykareva*.
7. ANALYSIS OF THE REFLECTION FEATURES OF A PERIODIC STRUCTURE WITH AN EMBEDDED RESONANT LAYER, *Kseniya Verevkina*.
8. INFLUENCE OF AN EXTERNAL ELECTRIC FIELD ON THE PROPAGATION OF EXTREMELY SHORT OPTICAL PULSES IN A PHOTONIC CRYSTAL OF CARBON NANOTUBES, *Yulia Dvuzhilova*.
9. SENSORY PROPERTIES OF BC-TYPE BOROCARBON NANOTUBES, *Daria Volkova*.
10. ELECTRO-OPTICAL RESPONSE OF POLYMER DISPERSED NEMATIC WITH AXIAL-BIPOLAR DIRECTOR CONFIGURATION, *Kristina Feyzer*.
11. STUDY OF THE ORGANIC LUMINOPHORES PHOTOSTABILITY IN POROUS SILICON MICROCAVITIES, *Tamara Kharinoeva*.
12. SECOND HARMONIC IN THE SCATTERING SPECTRUM OF ULTRA-SHORT PULSES ON NANOSTRUCTURES, *Andrey Goshev*.
13. RECONSTRUCTION OF THE ELECTRON BEAM PROFILE USING A WIRE DETECTOR, *Sofya Briginets*.
14. ANTIFERROMAGNETIC RESONANCE IN CRYSTALS OF THE FAMILY PRXY₁-XFE₃(BO₃)₄ WITH ANGULAR MAGNETIC STRUCTURE, *Roman Mironov*.
15. VISUALIZATION OF SCATTERING SPECTRA OF DOUBLE-STRANDED RIGHT-HANDED DNA MOLECULE, *Kharlamova Anastasiia*.
16. EFFECTS OF ELECTRON-PHONON INTERACTION IN MICROCATHODOLUMINESCENCE OF HEXAGONAL BORON NITRIDE, *George Mikhalevsky*.
17. USING THE MODERN THEORY OF MAGNETIC SUSCEPTIBILITY APPROACH TO DESCRIBE THE LOW-DIMENSIONAL MATERIALS: TWO-DIMENSIONAL ANTIMONY, *Georgy Pushkarev*.
18. THE SHAPE OF DENDRITIC TIPS, *Liubov Toropova*.
19. INFLUENCE OF ARGON PRESSURE ON THE SURFACE MORPHOLOGY OF THIN INGAASP/SI FILMS OBTAINED BY PULSED LASER DEPOSITION, *Oleg Devitsky*.
20. EFFECTS OF A PEARLITE MORPHOLOGY AND A PLASTIC DEFORMATION ON THE MAGNETIC PROPERTIES AND A RESIDUAL STRESS OF THE EUTECTOID STEEL, *Elizaveta Schapova*.
21. PHASE TRANSFORMATIONS IN UNSTABILIZED ZRO₂, *Andrei Smirnov*.
22. CALCULATIONAL TECHNIQUE FOR CARRYING OUT PHASE CLASSIFICATION IN MAGNETIC MATERIALS, *Ilya Iakovlev*.

23. ABOUT THE POSSIBILITY OF CREATING A HIGH-PERFORMANCE SENSOR BASED ON BORON NITRIDE NANOTUBES, *Sergei Boroznin*.
24. COMPARISON OF THE MAXWELL-GARNETT AND BRUGGEMAN MODELS IN THE DESCRIPTION OF NANOCOMPOSITES WITH PARTICLES OF NOBLE METALS, *Irina Potapova*.
25. FIELD-EFFECT CATHODES BASED ON NITROGEN-DOPED CARBON NANOOBJECTS, *Sergey Kapustin*.
26. DIELECTRIC AND MAGNETIC PROPERTIES OF NANOCRYSTALLINE SAMPLES OF STRONTIUM TITANATE, *Elena Ievleva*.
27. SCATTERING OF ULTRASHORT LASER PULSES BY NANOSYSTEMS WITH DEFECTS, *Nikita Krivopolenov*.
28. PROCESSES OF EVOLUTION OF RADIATION DEFECTS IN SOLIDS BY THE USAGE OF CELLULAR AUTOMATA, *Aliya Baratova*.
29. PHASE AND GROUP VELOCITIES OF POLARITONS IN THE CRYSTALS NEAR PHONON RESONANCE, *Arpine Grigoryan*.
30. SCATTERING OF ULTRA-SHORT LASER PULSES ON DYNAMIC TARGETS, *Kseniya Makarova*.
31. PREDICTION OF SOLID SOLUTION FORMATION IN CO-CR-FE-MN-NI SYSTEM HIGH-ENTROPY ALLOYS, *Osintsev Kirill*.

1. DEVELOPMENT OF THE SOFTWARE AND HARDWARE COMPLEX FOR DETERMINING THE RELIABILITY OF RADIO ELECTRONIC DEVICES, *Alexander Kostyukov*.
2. DEVELOPMENT OF A DEVICE FOR AUTOMATIC APPLICATION OF HYDROPHOBIC COATINGS, *Sergey Zabolotniy*.
3. DUAL BAND SLOT MIMO ANTENNA FOR CELL PHONE, *Evgeniy Ischenko*.
4. THE USE OF VIBRATION DAMPING INSERTS FOR INSTRUMENT HOUSINGS, PROTECTIVE COVERS AND FENCES IN ORDER TO REDUCE THEIR VIBRATION EXCITABILITY, *Alevtina Samofalova*.
5. TECHNIQUE FOR OPTIMIZING LOSSES CAUSED BY EDDY CURRENTS IN MAGNETIC COMPONENTS WITH ALTERNATIVE WINDINGS, *Nikolay Veretennikov*.
6. LOW PROFILE SLOT ANTENNA INTEGRATED WITH SOLAR PANEL, *Evgeniy Ischenko*.
7. DEVELOPMENT OF A UNIVERSAL EXPERIMENTAL STAND FOR THE STUDY OF SOLAR CELLS, *Alexander Ladvishchenko*.
8. DEVELOPMENT OF PSEUDORANDOM SEQUENCE GENERATORS USING PROGRAMMABLE LOGIC INTEGRATED CIRCUITS (FPGAS), *Alexander Pirogov*.
9. EFFECT OF INHOMOGENOUS CURRENT DISTRIBUTION IN SOLAR ELEMENTS DURING THERMAL RESISTANCE MEASURING, *Andrey Gavrikov*.
10. DEVELOPMENT OF A METHODOLOGY FOR THE IMPACT OF ELECTROMAGNETIC INTERFERENCE ON THE FUNCTIONING OF ELECTRONIC DEVICES, *Dmitry Vasikchenko*.
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